

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 5-8, 11-14, 17-21, 48, 49, 51-54, and 68-80 are pending in the application, with 68, 73, 78, and 80 being the independent claims. Claim 80 has been withdrawn from consideration. Claims 16 and 50 are sought to be canceled without disclaimer of or prejudice to the subject matter therein.

Claims 68, 73, and 78 are sought to be amended to recite "wherein the key scheduler includes a multi-stage pipeline and is further configured to generate a round key each clock cycle after a series of initialization clock cycles." Support for these amendments can be found in paragraphs [0067] through [0070] of the specification which state "[p]ipelining is contemplated to allow the key to be provided in a high-speed DES environment. Key scheduling operations can be separated into different stages based on logical arrangements." Table 1 illustrates that after a series of initialization clock cycles a round key is consumed each clock cycle (C1, C2).

These changes are believed to introduce no new matter, and their entry is respectfully requested. Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. §§ 102 and 103

Claims 5-8, 11, 12, 17-21, 48, 49, 51, 52, and 68-79 were rejected under 35 U.S.C. §102(e) as being anticipated by Kawamura, et al, U.S. Patent No. 6,940,975 (Kawamura). Claims 13, 14, 53, and 54 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kawamura in view of Steinman, U.S. Patent No. 6,591,349 (Steinman). Claims 16 and 50 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kawamura in view of Steinman and further in view of Teppler, U.S. Patent No. 6,792,536 (Teppler). Applicants respectfully traverse these rejections.

Kawamura alone or in combination with Steinman and/or Teppler does not teach or suggest each and every element of amended independent claims 68, 73, and 78. Amended independent claims 68, 73, and 78 each recite “wherein the key scheduler includes a multi-stage pipeline and is further configured to generate a round key each clock cycle after a series of initialization clock cycles.”

In the rejection of dependent claims 16 and 50, the Examiner acknowledged that Kawamura and Steinman do not teach or suggest “performing pipelined key scheduling logic.” (Office Action, p. 9). However, the Examiner stated that Teppler provides this missing teaching. Teppler makes a broad generic statement that “[s]ince the implementation of DES is fast, it can easily be pipelined with software codecs and not impact system performance.” (Teppler, col. 7, lines 13-25). Teppler does not describe a “key scheduler” and thus, does not teach or suggest “wherein the key scheduler includes a multi-stage pipeline and is further configured to generate a round

key each clock cycle after a series of initialization clock cycles,” as recited in amended independent claims 68, 73, and 78.

For at least these reasons, amended independent claims 68, 73, and 78 are patentable over Kawamura alone or in combination with Steinman and/or Teppler. Claims 5-8, 11-14, 17-21, and 69-72 depend from claim 68. Claims 48, 49, 51-54, and 74-77 depend from claim 73. Claim 79 depends from claim 78. For at least these reasons, and further in view of their own features, dependent claims 5-8, 11-14, 17-21, 48, 49, 51-54, 69-72, 74-77, and 79 are patentable over Kawamura alone or in combination with Steinman and/or Teppler. Reconsideration and withdrawal of the rejections are therefore respectfully requested.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is
respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Lori A. Gordon".

Lori A. Gordon
Attorney for Applicants
Registration No. 50,633

Date: September 20, 2007

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600